



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,883	03/31/2004	Masaharu Kocho	A36175	5749
21093 7590 06/10/2008 BAKER BOTTS L.L.P. 30 ROCKEFELLER PLAZA 44TH FLOOR NEW YORK, NY 10112-4498				
EXAMINER FLETCHER III, WILLIAM P				
ART UNIT		PAPER NUMBER		
1792				
NOTIFICATION DATE		DELIVERY MODE		
06/10/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DL.NYDOCKET@BAKERBOTTS.COM

Office Action Summary

Application No.

10/813,883

Applicant(s)

KOCHA ET AL.

Examiner

William P. Fletcher III

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) 6-14 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-14 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 31 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-850)
Paper No(s)/Mail Date 3/31/2004, 4/26/2004, 8/13/2004
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Inventor's Patent Application
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 1-5 in the reply filed on March 31, 2008, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 6-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on March 31, 2008.

Information Disclosure Statement

3. The information disclosure statements filed March 31, 2004, April 16, 2004, and August 13, 2004, have been considered.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

5. The drawings were received on March 31, 2008. These drawings are acceptable.

Specification

6. The abstract of the disclosure is objected to because it does not recite any process steps. Correction is required. See MPEP § 608.01(b).
7. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the

Art Unit: 1792

patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

8. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art or US 5,810,992 A, either in view of US 6,045,860 A.

A. It is known to coat the internal surfaces of a cylinder of an internal combustion engine by electroless plating (i.e., chemical plating) as evidenced, for example, by Applicant's admitted prior art at paragraphs [0005]-[0011] of the specification and Fig. 3 of the drawings. In the alternative, this fact is also evidenced by at least the first step in the process disclosed in US '992 at 1:10-18 and 2:25 ff. The question of patentability of the claims thus concerns whether the claimed methods of introduction, circulation, and removal, of the electroless plating solution would have been obvious to one of ordinary skill in the art.

B. For claim 1, US '860 teaches a process for the electroless plating of a tube (i.e., cylinder) in which the cylinder is filled from one end with electroless plating solution that is passes along the length (i.e., axial line) of the cylinder and

exists at the distal end [4:29-32, for example], thereby effecting electroless plating.

C. It would have been obvious to one skilled in the art to effect the known electroless plating of the prior art according to a process in which the plating solution is passed through and along the axial line of the cylinder, such as that taught by US '860. One skilled in the art would have been motivated to do so by the desire and expectation of successfully effecting plating of the internal surfaces of the cylinder.

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art or US 5,810,992 A, as applied to claim 1 above, *either* further in view of JP 57-169097.

- A. Applicant's admitted prior art and US '992 are detailed above.
- B. While US '860 rendered the claimed passing along the axial line of the cylinder obvious, neither of these references expressly teaches that the cylinder is in a vertical orientation.
- C. As noted above, patentability of the claims concerns whether the claimed methods of introduction, circulation, and removal, of the electroless plating solution would have been obvious to one of ordinary skill in the art. JP 57-169097 teaches a process in which a cylindrical object is electrolessly plated in the vertical position by flowing the plating solution in one end, through the cylindrical object, and out the distal end. See the English-

language abstract. Please also note the discussion of this reference in JP 08-319576, cited by Applicant.

- D. It would have been obvious to one skilled in the art to effect the known electroless plating of the prior art according to a process in which the plating solution is passed through and along the axial line of the cylinder, said axial line being oriented vertically, as taught by JP 57-169097. One skilled in the art would have been motivated to so by the desire and expectation of successfully effecting plating of the internal surfaces of the cylinder.

13. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art or US 5,810,992 A, as applied to claim 1 above, either further in view of JP 03-068776.

- A. Applicant's admitted prior art and US '992 are detailed above.
- B. Neither reference expressly teaches that the plating solution is supplied in the manner claimed.
- C. As noted above, patentability of the claims concerns whether the claimed methods of introduction, circulation, and removal, of the electroless plating solution would have been obvious to one of ordinary skill in the art. JP 03-068776, cited by Applicant teaches a means for delivery of electroless plating solution to an object to be plated by dripping components of the solution from sub-tanks into the plating area, plating the object, and collecting the solution for reuse.

- D. It would have been obvious to one skilled in the art to effect the known electroless plating of the prior art according to a process in which the plating solution is delivered to the cylinder in the fashion claimed, as taught by JP 03-068776. One skilled in the art would have been motivated to so by the desire and expectation of successfully effecting plating of the internal surfaces of the cylinder.

14. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art or US 5,810,992 A, as applied to claim 2 above, either further in view of JP 57-169097.

- A. This combination of references would have been obvious for the reasons noted in the rejection of claim 2 above.
- B. JP 57-169097 further teaches that the plating solution is pumped from a tank, through the cylinder, and returned to the tank. See English-language abstract.
- C. It would have been obvious to one skilled in the art to utilize these further aspects of plating solution delivery taught by JP 57-169097. One skilled in the art would have been motivated to so by the desire and expectation of successfully effecting plating of the internal surfaces of the cylinder.

15. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art or US 5,810,992 A, as applied to claim 1 above, either further in view of JP 06-159131.

- A. Applicant's admitted prior art and US '992 are detailed above.

- B. Neither of these references expressly teaches that claimed Ni-P-B plating solution.
- C. JP 06-159131, cited by Applicant, teaches the electroless coating of the internal surfaces of a cylinder of an internal combustion engine with this plating solution. Such a plating solution is advantageously more environmentally friendly than other, prior art Cr-containing compositions. See English-language abstract.
- D. It would have been obvious to one skilled in the art to effect the known electroless plating of the prior art according to a process using the Ni-P-B plating solution taught by JP 06-159131. One skilled in the art would have been motivated to do so by the desire and expectation of successfully effecting plating of the internal surfaces of the cylinder using an environmentally-friendly plating solution.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Sunday, 5:00 AM - 12:00 PM and Monday through Friday, 5:00 AM - 3:30 PM; on campus every Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1792

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Phillip Fletcher III/

Primary Examiner

June 4, 2008